

AMENDMENTS TO THE CLAIMS

1        1 - 38. (Canceled).

1            39. (New) A method of satisfying a resource request in a computer system for  
2        configuring systems using a resource comprising a combination of resources, the method  
3        comprising:

4                instantiating in the computer system a configuration instance from a configuration model,  
5        wherein the configuration model includes a defined structural hierarchy of  
6        elements and a plurality of resources offered by elements in the structural model  
7        hierarchy;

8                (a) examining the configuration instance for an element offering a resource in response to  
9        a request for the resource, wherein the resource offered by at least one of the  
10       elements in the structural model hierarchy represents a combination of multiple  
11       like resources;

12               (b) selecting the element when the resource has not been previously consumed;

13               (c) selecting a newly created element instance that offers the resource if no existing  
14        elements satisfy the resource request; and

15               (d) repeating (a) through (d) when the element selection does not satisfy the resource  
16        request.

1            40. (New) The method of claim 39 wherein the combination of multiple like  
2        resources comprises pooled resources.

1            41. (New) The method of claim 40 wherein each element offering a resource that  
2        includes a pool of resources is a structural superior in the structural model hierarchy to an  
3        element consuming the resource.

1            42. (New) The method of claim 40 wherein a plurality of the resources in the pool of  
2        resources combine to satisfy the resource request.

1        43. (New) The method of claim 40 wherein one of the resources in the pool of  
2 resources satisfies the resource request.

1        44. (New) The method of claim 40 wherein the element offering the resource  
2 includes multiple power supplies whose combined power supply capacity is pooled to provide  
3 the requested resource.

4        45. (New) The method of claim 39 wherein the combination of multiple like  
5 resources comprises resources inherited from at least one other element.

1        46. (New) The method of claim 45 wherein each element offering a resource  
2 includes resources inherited from at least one other element is a structural superior in the  
3 structural model hierarchy to an element consuming the resource.

1        47. (New) The method of claim 45 wherein a plurality of the resources inherited  
2 from at least one other element combines to satisfy the resource request.

1        48. (New) The method of claim 45 wherein one of the resources inherited from at  
2 least one other element satisfies the resource request.

1        49. (New) The method of claim 39 wherein the configuration instance is empty when  
2 a new configuration is being defined and the configuration instance includes an existing  
3 configuration when an existing system is being updated.

1        50. (New) An apparatus for configuring systems comprising:  
2           a processor;  
3           a memory coupled to the processor;  
4           a model stored in the memory, wherein elements included in the model are defined in a  
5           structural model hierarchy and each of the elements offers one or more resources;

6           a configuration engine, stored in the memory and executable by the processor, to satisfy a  
7           resource request using a resource comprising a combination of resources, wherein  
8           the configuration engine includes code executable by the processor for:  
9           instantiating in the computer system a configuration instance;  
10          (a) examining the configuration instance for an element offering a resource in  
11           response to a request for the resource, wherein the resource offered by at  
12           least one of the elements in the structural model hierarchy represents a  
13           combination of multiple like resources;  
14          (b) selecting the element when the resource has not been previously consumed;  
15          (c) selecting a newly created element instance that offers the resource if no  
16           existing elements satisfy the resource request; and  
17          (d) repeating step (a) through (d) when the element selection does not satisfy the  
18           resource request.

1           51. (New) The method of claim 50 wherein the combination of multiple like  
2           resources comprises pooled resources.

1           52. (New) The method of claim 51 wherein each element offering a resource that  
2           includes a pool of resources is a structural superior in the structural model hierarchy to an  
3           element consuming the resource.

1           53. (New) The method of claim 51 wherein a plurality of the resources in the pool of  
2           resources combine to satisfy the resource request.

1           54. (New) The method of claim 51 wherein one of the resources in the pool of  
2           resources satisfies the resource request.

1        55. (New) The method of claim 51 wherein the element offering the resource  
2 includes multiple power supplies whose combined power supply capacity is pooled to provide  
3 the requested resource.

4        56. (New) The method of claim 51 wherein the combination of multiple like  
5 resources comprises resources inherited from at least one other element

1        57. (New) The method of claim 50 wherein each element offering a resource  
2 includes resources inherited from at least one other element is a structural superior in the  
3 structural model hierarchy to an element consuming the resource.

1        58. (New) The method of claim 57 wherein a plurality of the resources inherited  
2 from at least one other element combines to satisfy the resource request.

1        59. (New) The method of claim 57 wherein one of the resources inherited from at  
2 least one other element satisfies the resource request.

1        60. (New) The method of claim 50 wherein the configuration instance is empty when  
2 a new configuration is being defined and the configuration instance includes an existing  
3 configuration when an existing system is being updated.

1        61. (New) An article of manufacture comprising code encoded therein and  
2 executable by a processor to cause the processor to:  
3              instantiate in the computer system a configuration instance from a configuration model,  
4              wherein the configuration model includes a defined structural hierarchy of  
5              elements and a plurality of resources offered by elements in the structural model  
6              hierarchy;  
7              (a) examine the configuration instance for an element offering a resource in response to a  
8              request for the resource, wherein the resource offered by at least one of the  
9              elements in the structural model hierarchy represents a combination of multiple  
10             like resources;

11                 (b) select the element when the resource has not been previously consumed;  
12                 (c) select a newly created element instance that offers the resource if no existing elements  
13                         satisfy the resource request; and  
14                 (d) repeat (a) through (d) when the element selection does not satisfy the resource  
15                         request.

1                 62. (New) An apparatus for satisfying a resource request in a computer system for  
2 configuring systems using a resource comprising a combination of resources comprising:  
3                         a processor;  
4                         a memory coupled to the processor;  
5                         a model stored in the memory, wherein elements included in the model are defined in a  
6                         structural model hierarchy and each of the elements offers one or more resources;  
7                         means for defining a structural model hierarchy and a plurality of resources offered by  
8                         elements in the structural model hierarchy;  
9                         means for instantiating in the computer system a configuration instance;  
10                 (a) means for examining the configuration instance for an element offering a resource in  
11                         response to a request for the resource, wherein the resource offered by at least one  
12                         of the elements in the structural model hierarchy represents a combination of  
13                         multiple like resources;  
14                 (b) means for selecting the element when the resource has not been previously consumed;  
15                 (c) means for selecting a newly created element instance that offers the resource if no  
16                         existing elements satisfy the resource request; and  
17                 (d) means for causing (a) through (d) to search for another element to satisfy the resource  
18                         request when the element selection does not satisfy the resource request.